

United States Government

Department of Energy

memorandum

DATE: SEP 22 2006

REPLY TO
ATTN OF: EM-60 (Chung, 202-586-5151)

SUBJECT: Request for Approval of Page Changes to the Remote Handled TRU Technical Safety Requirements

TO: David Moody, Manager, Carlsbad Field Office

REF: Remote Handled Technical Safety Requirements, Revision 0

Based on my review of the Safety Evaluation Report (SER) Waste Isolation Pilot Plant; Remote Handled (RH) Technical Safety Requirements (TSR), Revision 0, I am approving the SER with the proposed changes.

I have signed the attached SER for your records and transmittal to the contractor. If you have any further questions, please call me at (202) 586-5151.



Dae Y. Chung
Deputy Assistant Secretary for
Safety Management and Operations
Environmental Management

Attachment

DOE/WIPP-06-3347

AUTHORITY APPROVAL

**Safety Evaluation Report
of the Waste Isolation Pilot Plant
*Remote Handled TRU Technical Safety Requirements,
Revision 0, Change 1***

**U. S. Department of Energy
Carlsbad Field Office**

Date: September 2006

Approval:  **Date:** 9/22/06
**Dae Chung, Deputy Assistant Secretary for Safety Management and
Operations, Office of Environmental Management**

1.0 INTRODUCTION

This Safety Evaluation Report (SER) addresses the Change 1 request to the Waste Isolation Pilot Plant (WIPP) Remote Handled (RH) TRU Waste Technical Safety Requirements (TSRs) Revision 0 as submitted in the Raaz memorandum (AA:06:00790, dated August 24, 2006) to Moody, "Request for Approval of a Page Change to the Remote Handled TRU Technical Safety Requirements". During the Line Management Assessment for the Washington TRU Solutions (WTS) RH Operational Readiness Review, WTS identified editorial and minor changes to the RH TSRs. The TSR Revision 0 is being revised to address:

1. Deletion of the color designation of the indicating lights for LCO 3.3.2 Upper Hot Cell and Facility Cask Loading Room pintle contact interlocks with the pivot dogs;
2. Clarification for LCO 3.3.3 interlock position indicator for the facility cask top shield valve and the grapple; and
3. Clarification for LCO 3.3.3 interlock closure position for the facility cask lower shield valve and the transfer cell ceiling shield valve.

2.0 REVIEW PROCESS

Incorporation of these changes is recommended to the Approval Authority based upon review of the specific changes and their supporting documentation by the CBFO staff, with assistance from the CBFO Technical Assistance Contractor (CTAC). This involved verification of the technical accuracy, completeness, and defensibility of the proposed page changes to the RH TSRs and their bases statements, and verifying that the TSR changes are consistent with the derivation of controls in the RH TRU Documented Safety Analysis (DSA), Revision 0. This SER is prepared by the approval authority in accordance with the guidance provided in DOE-STD-1104-96, *Review and Approval of Nonreactor Nuclear Facility Safety Analysis Reports*. This review provides the Director, Deputy Assistant Secretary for Safety Management and Operations, DOE Office of Environmental Management (approval authority), with the basis for approval of these changes.

3.0 APPROVAL BASES

The first change deletes the "green" color indication for the LCO 3.3.2 Upper Hot Cell and Facility Cask Loading Room pintle contact interlocks with the pivot dogs. The RH DSA Chapter 3 hazards evaluation identifies the safety interlock for Facility Worker and Site Worker protection, which does not specifically address the pintle contact indicating lights. The RH DSA Section 4.4.4, "Upper Hot Cell Crane Grapple and FCLR Grapple Hoist Grapple", establishes the safety significant requirements for the interlock, and does not address color requirements. The RH DSA Sections 5.5.5.1 and 5.5.5.2 provide the derivation of TSR LCO and Surveillance Requirements, which currently includes the "green" designation. However, the color designation is not necessary to specifically identify the pintle contact indicating lights that are relied on to perform the two Surveillance Requirements 4.3.2.1 and 4.3.2.2. Therefore, deleting the color designation from the TSRs is appropriate. In addition to revisions to the LCO 3.3.2 statement and the Surveillance Requirements to delete the color designation, the TSR bases discussions in Appendix A are also revised.

The second change clarifies the LCO 3.3.3 interlock position indicator for the facility cask top shield valve and the grapple. This change relates to deleting reference to the “A” position of the indicator and the LCO is revised as follows: “The facility cask top shield valve cannot be closed unless the grapple is at position B as indicated by the associated position lights on control panel 411-CP-264-04 and the grapple is open”. The B position is “shield bell in contact with the top of the facility cask”. The B position ensures that the RH waste canister is either not in the facility cask or the canister is in the cask and resting on the closed bottom shield valve and that the grapple hoist ropes and grapple are above the top shield valve. The A position is the “maximum up position” and was incorrectly referenced. The RH DSA Chapter 3 hazards evaluation identifies the safety interlock for Facility Worker and Site Worker protection, which does not specifically address any position of the indicator. The RH DSA Section 4.4.14, “WHB Interlocks - FCLR Grapple Hoist and Shield Bell, Telescoping Port Shield, Facility Cask, and Transfer Cell Ceiling Shield Valve”, establishes the safety significant requirements for the interlock, which currently includes the “A or B” position. The RH DSA Sections 5.5.6.1 and 5.5.6.2 provide the derivation of TSR LCO and Surveillance Requirements, respectively, which also currently includes the “A or B” position. In addition to revisions to the LCO 3.3.2 statement and the Surveillance Requirement 4.3.3.1 to delete reference to the A position, the TSR bases discussions in Appendix A are also revised.

The last change clarifies the interlock closure position for the facility cask lower shield valve and the transfer cell ceiling shield valve. This change relates to replacing the “closed” position with “open” for the transfer cell ceiling shield valve and the LCO is revised as follows: “The facility cask lower shield valve cannot be opened unless the transfer cell ceiling shield valve is open and the grapple hoist is at position D”. This ensures that if the telescoping port shield is not raised, personnel in the FCLR will not be exposed to an RH waste canister. The “closed” position was incorrectly described. The RH DSA Chapter 3 hazards evaluation identifies the safety interlock for Facility Worker and Site Worker protection, which does not specifically address the correct position of the the transfer cell ceiling shield valve. The RH DSA Section 4.4.14, “WHB Interlocks - FCLR Grapple Hoist and Shield Bell, Telescoping Port Shield, Facility Cask, and Transfer Cell Ceiling Shield Valve”, establishes the safety significant requirements for the interlock, which currently includes the “open” instead of “closed” position. The RH DSA Sections 5.5.6.1 and 5.5.6.2 provide the derivation of TSR LCO and Surveillance Requirements, respectively, which also currently includes the “open” instead of “closed” position. In addition to revisions to the LCO 3.3.2 statement and the Surveillance Requirement 4.3.3.3 to identify the correct position, the TSR bases discussions in Appendix A are also revised.

The DSA Chapter 4 and 5 page changes are not being revised at this time, but have already been incorporated into the RH DSA Revision 1 update which has been submitted to DOE for review and approval. Revising them at this time is not needed to support Change 1 to the RH TSRs Revision 0.

4.0 RESULTS

The review resulted in confirmation that the RH TSR Revision 0 Change 1 are accurate and complete to establish the LCO and Surveillance requirements, and are consistent with the DSA Revision 0 Chapters 3, 4, and 5 as discussed above.

It is the judgment of the reviewers that the RH TSR Revision 0 Change 1 meets the 10 CFR 830 Subpart B requirements and DOE guidance, and that the implementation of these TSR changes are appropriate for the contractor to operate as established by the safety basis.

5.0 CONDITION OF APPROVAL

No conditions of approval are necessary for the Change 1 to Revision 0 of the RH TSRs.

6.0 CONCLUSIONS

Based on the reviewers' assessment of Change 1 to Revision 0 of the RH TSRs, and the evaluation of the approval authority, it is concluded that the changes are consistent with the derivation of controls in the RH Waste DSA. Change 1 to Revision 0 of the RH TSRs is thus approved for release.